METHOD AND APPARATUS FOR RELIABLE MULTICAST DISTRIBUTION

ABSTRACT OF THE DISCLOSURE

A system for reliable multicast distribution includes a primary content engine and a backup content engine sender. The primary content engine sender sends out a multicast message of content to selected content engine receivers. The sender waits for negative acknowledgments from the selected content engine receivers declaring that content was not received. If a negative acknowledgment is received, the sender resends the multicast message a predetermined number of times. If the content is still not received after the number of multicast passes is exhausted, the sender sends out unicast messages to those receivers still requesting content. If the primary sender does not respond to a negative acknowledgment, the receiver sends a second negative acknowledgment to the backup multicast sender. The backup responds with the data requested in the negative acknowledgment and so is able to begin data distribution at the point where the primary sender left off without maintaining synchronicity with the primary sender.